REMARKS

Upon entry of this amendment, claims 1-20 are currently pending in the application. By this amendment, claims 1-5 are amended. Additionally, claims 6-20 are added for the Examiner's consideration. Support for the added claims is provided in at least Figures 1-3 and accompany description in the specification. No new matter is added. Reconsideration of the rejected claims in view of the above amendments and the following remarks is respectfully requested.

Objection to Specification

The specification has been objected to for containing numerous grammatical and idiomatic errors.

Applicants have carefully reviewed the specification and have corrected several grammatical and idiomatic errors, as shown above. However, Applicants are of the opinion that such errors do not require the need for a substitute specification. If such a substitute specification is still required, Applicants respectfully request the Examiner to direct Applicants' attention to other grammatical and idiomatic errors that would give rise to the need of a substitute specification.

Applicants request withdrawal of the objection to the specification. In the alternative,

35 U.S.C. §112 Rejection

Claims 1-5 were rejected under 35 U.S.C. §112, 2nd paragraph. This rejection is respectfully traversed.

Claim 1 was amended to address antecedent issues. Applicants have also amended the claims to delete reference to "type". However, Applicants note that these amendments are not made for patentability reasons, and are not to be considered narrowing claims.

The amendments to delete "type", for example, are made only to expedite prosecution of this application. To this end, Applicants submit that the use of "type" is clear from the

specification and renders the claims definite in accordance with the dictates of the MPEP. By way of example, MPEP §2173.01 specifically states, in part:

> The test for definiteness under 35 U.S.C. 112, second paragraph is whether "those skilled in the art would understand what is claimed when the claim is read in light of the specification."

MPEP §2173(05(a) also states, in part:

> The meaning of every term used in a claim should be apparent from the prior art or from the specification and drawings at the time the application is filed.

Keeping with this, Applicants submit that the specification is replete with the terminology "normally-open-type electromagnetic valve". For example, this language is on page 22 and onwards. Also, when referring to this language, the specification refers to Figures 1-3, which clearly show this type of valve.

Additionally, Applicants submit that the use of the language "type" is well known in the art and that this language is apparent in the known art as shown in, for example, U.S. Patent No. 6,571,556, which reads, in part

> "a bottom wall defining a first union hole and a second union hole respectively adapted to communicate with cylinder holes formed in said tandem-***type*** hydraulic master cylinder..." (Emphasis added.)

Lastly, Applicants have carefully reviewed the claims and find no other grammatical or idiomatic errors. Applicants, however, respectfully request the Examiner to direct Applicants' attention to any such issues, which can then be later addressed, if appropriate.

Accordingly, Applicants respectfully request that the rejection over claims 1-5 be withdrawn.

35 U.S.C. §102 Rejection

Claims 1-3 were rejected under 35 U.S.C. §102(b) for being anticipated by U. S. Patent No. 6,065,495 to Fong. This rejection is respectfully traversed.

To reject a claim under 35 U.S.C. §102, each and every claim term must be either expressly or inherently recited in a single reference. To this end, the Examiner is of the opinion that Fong shows all of the features of claims 1-3. Applicants do not agree with the Examiner and submit that many features of the claimed invention are clearly missing, and not ever addressed, by the Fong reference.

Claim 1 recites, in part,

> ... by setting the attracting force at a given value, the brake fluid pressure to be maintained on the wheel brake side is set; and,
>
> when the normally-open electromagnetic valve is closed due to application of a current to the electromagnetic coil, in case where the brake fluid pressure of the wheel brake is higher than the attracting force of the given value, the normally-open electromagnetic valve is opened against the attracting force to thereby reduce the brake fluid pressure of the wheel brake down to the given value.

Since the adjustment of the current value makes it possible to set the brake fluid pressure arbitrarily in the wheel brake, it is possible to provide a general-purpose vehicle brake fluid pressure maintaining apparatus which can be suitably used in all types of vehicles even in case they are different in weight from each other. Also, by this arrangement, more complex components can be eliminated by the invention. In any event, these elements, however, are not shown in the Fong reference.

As should be understood, the electromagnetic valve of Fong is totally different from that of the claimed invention. the electromagnetic valve of Fong is a two position, three-port electromagnetic valve, in which any of the ports is still communicated with the other even if it is energized. In contrast, the electromagnetic valve of the invention is a two position, tow port

electromagnetic valve. When the electromagnetic valve of the invention is energized, communication between the two ports is necessarily shut.

More specifically, Fong is directed to a two position, three-way solenoid for use in braking systems. In Fong, the two-position, three-way solenoid-actuated valve includes an electromagnetic coil assembly engaging a valve assembly to move a ball between a first valve seat and a second valve seat via the use of springs 42 and 66 to provide directional flow control. Much like that described in the Background section of the present specification, the Fong reference shows a complex arrangement including two energizing springs and two valve seats. The valve springs have a certain force that must be overcome in order to provide the functions of this valve system. These complex arrangements are now no longer required in the present invention.

Addressing the Examiner's specific rejection, at column 6, Fong discloses the use of a blow off assembly to limit the pressure in the brake circuit when the solenoid actuated valve is actuated. However, Fong does not discuss or even remotely suggest or contemplate (i.e., is silent) setting an attracting force between a movable and fixed member to a given value to allow an electromagnetic valve to be opened against the attracting force to thereby reduce the brake fluid pressure of the wheel brake down to the given value, amongst other features of claim 1.

Instead, Fong discloses overcoming a spring force in order to limit the pressure of the brake fluid via the use of a blow off valve. Fong first shows opening a pathway by energizing a coil assembly 68. (See, col. 6, lines 16-34.) However, Fong then shows reducing the brake pressure by use of the blow off valve, during this energizing state, by overcoming a spring force of spring 66. This is not the same or even remotely similar to <u>setting an attracting force</u> to a given value to allow the normally-open electromagnetic valve to reduce the brake pressure. (This setting can be accomplished, for example, by decreasing a current to the coil assembly, controlling the movement of the valve.)

By way of specific example, Fong discloses at col. 6, lines 37-55,

> When the brake system pump is operating, it is forcing fluid into the brake circuit. This fluid pushes against the lip seal 50

> and ball 44. As the fluid pressure increases, the hydraulic force acting on the ball 44 increases. This hydraulic force and the return spring 42 force together act against the spring 66 in the blow-off assembly 54. As the sum of the hydraulic force and return spring 42 force increase to equal the force of the spring 66 of the blow-off assembly 54, the ball 44 begins to move off of the isolation valve seat 40. The ball 44 pushes against the blow-off rod 56 and the spring 66 compresses to absorb the movement of the blow-off rod 56 and case 60. As the ball 44 rises from the isolation valve seat 40, fluid in the brake circuit flows through the passageway 35 and isolation valve seat 40 into the opening 26. From the opening 26, the fluid can flow out the bore 28 and through the band filter 52 to return to the reservoir. (Emphasis added.)

As seen, Fong does not address setting a given value of the attracting force. Instead, Fong actually shows exceeding a spring force of spring 66 in order for the ball 44 to move off the isolation seat 44 and allow fluid to flow to the reservoir. Thus, Fong addresses overcoming a spring force; not setting a given value of the attracting force. And, Applicants would submit that Fong inherently suggests, in any event, that the force of the spring 66 and/or spring 42 would be adjusted in order to provide a flow to the reservoir, e.g., limit the pressure of the brake fluid. Any other interpretation would appear to be based on hindsight reasoning. However, this is not the same as presently claimed.

It is also noted that Fong shows blocking pathways using different valves and the ball, for example. This is a complex system which requires the ball to move into and out of contact with the isolation seat, using two energizing springs. However, as shown by the present invention, only a single valve and valve seat is required to provide the functions of the claimed invention. This clearly eliminates many problems and complexities which can be encountered by the Fong system.

In view of the above, it is also submitted that the Fong reference does not show the features of claims 2 and 3. For example, there is no disclosure in Fong for decreasing the attracting force due to gradually reducing the value of the current to be applied to the electromagnetic coil according to a previously set function. Rather, Fong has an energized or de-

energized state, without any mention of gradually reducing a value of the current applied to the coil assembly.

Accordingly, Applicants respectfully request that the rejection over claims 1-3 be withdrawn.

35 U.S.C. §103 Rejection

Claims 4 and 5 were rejected under 35 U.S.C. §103(a) over Fong in view of U. S. Patent No. 5,771,933 to Akamatsu. This rejection is respectfully traversed.

The Examiner correctly notes that Fong does not show recessed and projecting portions. However, the Examiner is of the opinion that these elements are shown by Akamatsu. The Examiner also is of the opinion that the features of the recess and projections lack any criticality in the specification for the claimed invention.

The "criticality" of the claimed arrangement is described at page 30 of the specification, as:

> According to the present structure, when compared with a structure in which the attracting surfaces of the fixed core (40) and movable core (41) are formed as flat surfaces, even in case where the fixed core (40) and movable core (41) are most distant from each other, a magnetic path can be delivered and received between the recessed portion (53) and projecting portion (54) and thus their mutually attracting forces are difficult to lower, so that the approaching movement of the movable core (41) in the direction of the fixed core (40) can be carried out with good efficiency.

Also, Akamatsu does not show a check valve as a cup shape. For this feature, the Examiner directs Applicants' attention to reference numeral 50. However, after careful review, Akamatsu does not show reference numeral 50.

Accordingly, Applicants respectfully request that the rejection over claims 4 and 5 be withdrawn.

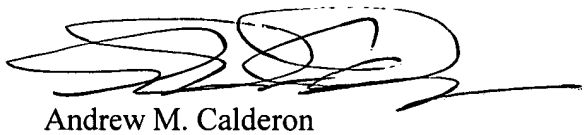
New Claims

Claims 6-20 are added for the Examiner's consideration. These claims include allowable subject matter which is not disclosed in the applied reference, for example.
Claims 6-13 depend, directly or indirectly, from independent claim 1. Claims 16 and 20 are independent claims, reciting means plus function language. These elements are not shown or even remotely disclosed in the references.

CONCLUSION

In view of the foregoing amendments and remarks, Applicants submit that all of the claims are patentably distinct from the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue. The Examiner is invited to contact the undersigned at the telephone number listed below, if needed. Applicants hereby make a written conditional petition for extension of time, if required. Please charge any deficiencies in fees and credit any overpayment of fees to Attorney's Deposit Account No. 23-1951.

Respectfully submitted,



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